

Notice of Allowability

Application No.

09/945,096

Examiner

Scott L. Jarrett

Applicant(s)

DEROSIER ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 10/12/2007.
2. ☒ The allowed claim(s) is/are 46, 48 and 49.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


TARIQ R. HAFIZ
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600

ALLOWANCE

1. The following is an Allowance in response to the Amendment submitted on October 12, 2007. Applicant's amendment amended 46 and 48-49 and canceled claims 1-45, 47 and 50-53. Claims 46 and 48-49 are currently pending and allowed below.

REASONS FOR ALLOWANCE

2. The following is an examiner's statement of reasons for allowance.

The present invention is directed a method for classifying schoolchildren into mutually exclusive sociometric social classifications based on peer nominations to social preference questions in a survey of a group of schoolchildren wherein the system calculates and reports a probability score for each schoolchild indicative of the probability of the schoolchild being classified in each sociometric social classification upon re-assessment (i.e. probability that schoolchildren would be classified the same way upon re-assessment), wherein the probability of each schoolchild's Social Preference score upon re-assessment would fall within the numeric ranges of greater than +1, less than -1, between -1 and +1, and between -.5 and +.5, are respectively:

$$P_{zSPPos1} = P(zSP) > 1 = \text{cdf}(zSP - 1);$$

$$P_{zSPNeq1} = P(zSP) < -1 = \text{cdf}(-1 - zSP);$$

$$P_{zSPNominal} = P(-1 \leq zSP \leq 1) = (1 - \text{cdf}(zSP - .5)) * \text{cdf}(.5 + zSP);$$

where $\text{cdf}(\cdot)$ denotes a cumulative density function

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as well as calculates a strength scores associated with each classification for each schoolchild wherein the strength scores are statistical values that represent how fixed or fluid the classification is over time.

The closest prior art SSRAT as evidenced by at least the following reference: Maassen et al., SSRAT: The processing of rating scales for the determination of two-dimensional sociometric status (1998), SociometryPlus by Online, Ltd. aspects of which are disclosed in at least the following: SociometryPlus 2.0b – Help Files & Screen Shots (April 2000) Sociometry.com Web Pages (April 2000) and Sherman, Lawrence, Sociometry In The Classroom: How To Do It (October 19, 2000) fail to teach or suggest either singularly or in combination a method for the sociometric analysis of a group of schoolchildren comprising generating a probability score for each schoolchild indicative of the probability of the schoolchild being classified in each sociometric social classification upon re-assessment, wherein the probability of each schoolchild's Social Preference score upon re-assessment would fall within the numeric ranges of greater than +1, less than -1, between -1 and +1, and between -.5 and +.5, are respectively:

$$PzSPPosl = P(zSP) > 1 = \text{cdf}(zSP - 1);$$

$$PzSPNeql = P(zSP) < -1 = \text{cdf}(-1 - zSP);$$

$$PzSPNominal = P(-1 < zSP < 1) = (1 - \text{cdf}(zSP - 1)) * \text{cdf}(1 + zSP);$$

where $\text{cdf}(\cdot)$ denotes a cumulative density function

as recited in independent claim 46.

SSRAT teaches a method of sociometric analysis of a group of schoolchildren comprising (Figure 1; Tables 1, 3):

- surveying the schoolchildren to obtain peer nominations to social preference questions (Column 1, Last Two Paragraphs, Page 675; Column 2, Paragraphs 1-2, Page 676; Column 2, Paragraphs 2-3, Page 678; Table 1);
- analyzing the peer nominations to generate standardized liked most (zLM) and liked least (zLL) metrics for each schoolchild (Column 1, Last Two Paragraphs, Page 675; Column 2, Paragraphs 1-2, Page 676; Table 1);
- generating standardized Social Preference (zSP) and Social Impact (zSI) scores from the standardized liked most and liked least metrics (Column 1, Last Two Paragraphs, Page 675; Column 2, Paragraphs 1-2, Page 676; Table 1);
- classifying each of the schoolchildren into one of a plurality of mutually exclusive sociometric classifications based on the metrics (Column 1, Last Two Paragraphs, Page 675; Column 2, Paragraphs 1-2, Page 676; Table 1);
- generating a probability score (value, number, metric, measure, etc.) for each schoolchild indicative of the probability of the schoolchild being classified in each sociometric/social classification (Column 2, Page 675; Column 1, Last Two Paragraphs, Page 676; Column 2, Paragraphs 1-3, Page 676; Column 1, Paragraphs 1-2, 4-5, Page 677; Column 1, Last Two Paragraphs, Page 678).

SSRAT does not expressly teach generating a probability score for each schoolchild indicative of the probability of the schoolchild being classified in each

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sociometric social classification upon re-assessment, wherein the probability of each schoolchild's Social Preference score upon re-assessment would fall within the numeric ranges of greater than +1, less than -1, between -1 and +1, and between -.5 and +.5, are respectively:

$$PzSPPosl = P(zSP) > 1 = \text{cdf}(zSP - 1);$$

$$PzSPNeql = P(zSP) < -1 = \text{cdf}(-1 - zSP);$$

$$PzSPNominal = P(-1 < zSP < 1) = (1 - \text{cdf}(zSP - 1)) * \text{cdf}(1 + zSP);$$

where $\text{cdf}(\cdot)$ denotes a cumulative density function

as recited in independent claim 46 nor calculating the relative probability of each schoolchild's sociometric classification upon re-assessment or calculating strength scores for each schoolchild and each sociometric social classification indicative of the degree to which the schoolchild's sociometric status is likely to remain the same or change in future re-assessments as claimed in Claim 49.

Sherman teaches performing the sociometric analysis of school children in an analogous art of sociometric analysis for the purposes of using well-known sociometric techniques and methods to understand schoolchildren status and/or relationships in order to identify potentially at risk children (Paragraphs 1-2, Page 3).

More generally Sherman teaches the traditional and well known methods for collecting and analyzing sociometric data including: peer nominations/ratings, sociometric ranking, social distance, recognition scale (Page 39), target technique (Pages 12-13) and the like (Pages 1, 12, 17) as well as the generating of a plurality of

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sociometric measures, some of which are standardized, including but not limited to social distance (Pages 41-42), z-scores (e.g. social preference, social impact; Page 40), social status (Page 40), weighted popularity (Page 38); sociograms (Page 5, 12, 38; Figure 4), nominee/nominator matrix (Page 8), personal social distance rating (Page 41, Last Paragraph); bar graphs (Page 10, Figure 3), social ranking (Pages 42-43), and the like.

Sherman further teaches classifying individuals, based on one or more sociometrics, including but not limited to popular, liked more than disliked, disliked more than like, controversial, rejected and neglected (Pages 12-13, 41).

Sherman does not expressly teach generating a probability score for each schoolchild indicative of the probability of the schoolchild being classified in each sociometric social classification upon re-assessment, wherein the probability of each schoolchild's Social Preference score upon re-assessment would fall within the numeric ranges of greater than +1, less than -1, between -1 and +1, and between -.5 and +.5, are respectively:

$$PzSPPosl = P(zSP) > 1 = cdf(zSP - 1);$$

$$PzSPNeql = P(zSP) < -1 = cdf(-1 - zSP);$$

$$PzSPNominal = P(-1 < zSP < 1) = (1 - cdf(zSP - 1)) * cdf(1 + zSP);$$

where $cdf(*)$ denotes a cumulative density function

as recited in independent claim 46.

None of the prior art of record, taken individually or in any combination, teach, inter alia, a method for the sociometric analysis of a group of schoolchildren comprising generating a probability score for each schoolchild indicative of the probability of the schoolchild being classified in each sociometric social classification upon re-assessment, wherein the probability of each schoolchild's Social Preference score upon re-assessment would fall within the numeric ranges of greater than +1, less than -1, between -1 and +1, and between -.5 and +.5, are respectively:

$$PzSPPosl = P(zSP) > 1 = \text{cdf}(zSP - 1);$$

$$PzSPNeql = P(zSP) < -1 = \text{cdf}(-1 - zSP);$$

$$PzSPNominal = P(-1 < zSP < 1) = (1 - \text{cdf}(zSP - 1)) * \text{cdf}(1 + zSP);$$

where $\text{cdf}(\cdot)$ denotes a cumulative density function

as recited in independent claim 46.

Further the prior art of record does not teach nor suggest calculating the relative probability of each schoolchild's sociometric classification upon re-assessment or calculating strength-scores for each schoolchild and each sociometric social classification indicative of the degree to which the schoolchild's sociometric status is likely to remain the same or change in future re-assessments as claimed in Claim 49.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Ward, Distinctions Between Sociometric Status Groups (1996), teaches the well known sociometric classification of schoolchildren using peer nominations (e.g. like most, liked least, etc.) wherein the schoolchildren are periodically re-assessed/tested.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott L. Jarrett whose telephone number is (571) 272-7033. The examiner can normally be reached on Monday-Friday, 8:00AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hafiz Tariq can be reached on (571) 272-6729. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Scott L. Jarrett
October 24, 2007
Asst. Examiner



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